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Material composition of the Upper Jurassic horizon of Tevlinsko-Russkinsky field (West Siberian oil and gas province)

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Abstract

© SGEM2016.The paper emphasizes the results of lithological and mineralogical analysis of the Upper Jurassic horizon structure within Tevlinsko-Russkinsky field (Western Siberia). The factors are identified that control potential oil bearing of the horizon. We studied lithological and facies evolution of the Upper Jurassic horizon within the field. Heterogeneity of individual sections is revealed. They differ in composition and structure of sandstone clastic and cement mass. The performed complex of studies can attribute reservoirs of the Upper Jurassic horizon of Tevlinsko-Russkinsky field to cluster-granular reservoirs, with mixed type of pore space. It has been established that the Jurassic reservoir rocks of the field belong to nanoporous type by the size of pores and pore channels. The structure of finely dispersed component of the cement mass and structure of the void and pore space are the determining factors for low reservoir properties of rocks. These factors are leading, defining the reservoir properties of rocks. The data obtained allow predicting the formation reaction to the applied methods of enhanced oil recovery in the development process.

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Keywords

Clay minerals, Oil field, Pores, Reservoir rocks, Terrigenous formation